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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.												
09/891,038	06/25/2001	Matthias Wandel	555255012248	9468												
7590 Joseph M. Sauer, Esq. Jones, Day, Reavis & Pogue North Point 901 Lakeside Avenue Cleveland, OH 44114		06/15/2007	<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">BENZON, GREG C</td></tr><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>2144</td><td></td></tr><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>06/15/2007</td><td>PAPER</td></tr></table>		EXAMINER		BENZON, GREG C		ART UNIT	PAPER NUMBER	2144		MAIL DATE	DELIVERY MODE	06/15/2007	PAPER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/891,038

Applicant(s)

WANDEL ET AL.

Examiner

Greg Bengzon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 67-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

This application has been examined. Claims 1-66,71-80 have been cancelled.  
Claims 67-70 are pending.

#### ***Priority***

This application claims benefits of priority from application 60/214080 filed on June 27, 2000.

The effective date of the claims in this application is June 27, 2000.

#### ***Making Final***

Applicant's arguments filed 04/13/2007 have been fully considered but they are not persuasive.

The claim amendments regarding -- *'each local base station including a routing cache stored in local memory that is not commonly accessible by all local base stations'* -- while altering the scope of the claims, do not overcome the disclosure by the prior art as shown below.

The Examiner is introducing new prior art as grounds for rejection and thus making this action FINAL.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 67-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US Patent 6535493), in view of Hall et al. (US Patent 6414962) further in view of Liu (US Patent 5825759).

Lee disclosed of a communication protocol for critical on-site communications for mobile units using base stations connected to a LAN. Initially, the process of FIG. 8 checks whether it has received a packet from a wired network such as from the Ethernet network in step 422. If not, the process is idled at step 422 until a packet has been received from the wired network. From step 422, the process of FIG. 8 checks whether the requesting packet is an ARP request in step 424. If so, the process of FIG. 8 further checks whether or not the current AP is acting as a home agent in step 428. If the AP is not acting as home agent, the process loops back to step 422 to repeat the incoming packet routing process. Alternatively, if the current AP is acting as the home agent in step 428, a proxy ARP response is sent in step 430.

Lee disclosed (re. Claim 67) a plurality of local base stations coupled to a local area network (LAN), the local base stations being configured to send and receive data over the LAN and to communicate wirelessly with the plurality of mobile devices (Lee - Column 4 Lines 15-60) ; the plurality of local base stations each having a network address on the LAN and are configured to send and receive data over the LAN using the network addresses (Lee - Column 4 Lines 15-60); a subscription server (Lee- ' *ARP server*', Column 11 Lines 12-25) operating on the LAN that is configured to identify the local base stations covering one or more of the mobile devices, the subscription server enabling the local-area wireless communication system to locate mobile devices that are in communication with the local-area wireless communication system (Lee - Figures 4 thru 6, Column 9 Lines 10-65);

However, Lee did not disclose (re. Claim 67) locating mobile devices without requiring communication between the plurality of base stations. Lee did not disclosed (re. Claim 67) wherein each local base station being configured to maintain a routing cache based on communications received from other local base stations, the routing cache identifying which of the plurality of local base stations were last in contact with mobile devices from which the communications were initiated; and each local base station being further configured to route an outgoing communication directed to a particular mobile device through a different local base station using the routing cache without requiring the local base station to access the subscription server and without sending information to other base station not involved in the communication, and

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wherein the base stations only access the subscription server when the routing information is not available in the local base station cache.

Hall disclosed (re. Claim 67) each local base station being configured to maintain a routing cache (Hall-Column 5 Lines 30-35) based on communications received from other local base stations (Column 2 Lines 15-20, Column 4 Lines 50-55), the routing cache identifying which of the plurality of local base stations were last in contact with mobile devices (Hall-Column 4 Lines 5-10) from which the communications were initiated; and each local base station being further configured to route an outgoing communication directed to a particular mobile device through a different local base station (Column 5 Lines 5-10) using the routing cache without requiring the local base station to access the subscription server (Hall-Column 5 Lines 30-35). Hall disclosed (re. Claim 67) locating mobile devices without requiring communication between the plurality of base stations (Hall- Column 4 Lines 5-10). Hall disclosed (re. Claim 67) without sending information to other base station not involved in the communication (Hall- Column 4 Lines 5-10). Hall disclosed (re. Claim 67) wherein the base stations only access the subscription server when the routing information is not available in the local base station cache. (Hall-Column 2 Lines 50-55, Column 5 Lines 30-35)

The Examiner notes that the term 'base station' is used very broadly in the networking art. Since the Applicant specifications do not provide a clear and concise definition of the term, the Examiner is interpreting 'base station' as the apparatus

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enabling a mobile device to access another network. The combination of Hall's Visiting PSN and Gateway PSN is equivalent to the Applicant's base station, since said combination enables Hall's mobile device to communicate with another network.

Furthermore, it would have been well known in the art that the external communication network disclosed by Hall would have included a Local Area Network. Thus, the combination of Hall's Visiting PSN and Gateway PSN is equivalent to the Applicant's base station as connected to a LAN.

The Examiner also interprets Hall's Visitor Location Register as equivalent to the Applicant's subscription server. While Hall does not specifically mention how the VLR is implemented, it would have been well-known in the art that VLR's often comprise a database running on a server.

Lee and Hall are analogous art because they present concepts and practices regarding the registration of mobile nodes and routing packets to and from mobile nodes in both home and foreign domains. At the time of the invention it would have been obvious to combine the teachings of Hall regarding a routing cache in the base station. The motivation for said combination would have been, as Hall suggests (Hall-Column 2 Lines 25), to reduce the number of access to the subscription server [VLR].

While Lee-Hall substantially disclosed the invention, Lee-Hall (re. Claim 67) did not disclose wherein '*each local base station including a cache stored in local memory that is not commonly accessible by all local base stations*'.

Liu disclosed (re. Claim 67) an Mobile Floating MF-agent and MF-agent manager implemented at each local base station (Liu-Column 18 Lines 50-55), wherein each MF-agent comprises a cache for storing service mobility information (Liu-Column 6 Lines 65-68) on behalf of a mobile user or terminal. Thus Liu disclosed wherein '*each local base station including a cache stored in local memory that is not commonly accessible by all local base stations*'.

Lee, Hall and Liu are analogous art because they present concepts and practices regarding the registration of mobile nodes and routing packets to and from mobile nodes in both home and foreign domains. At the time of the invention it would have been obvious to combine Liu into Lee-Hall. The motivation for said combination would have been (Liu-Column 9 Lines 50-60) to reduce overhead incurred in broadcasting invalidation reports at each cell.

Lee-Hall-Liu disclosed ( re. Claim 69) wherein each local base station includes a subscription list that identifies the mobile devices currently covered by the identified base station (Hall-Column 3 Lines 50-55).



Lee-Hall-Liu disclosed (re. Claim 70) wherein the local base stations are configured to purge from the route cache data relating to any mobile device to which the local base station has not been in communication for a predefined interval of time. (Lee-Column 9 Lines 20-25, '*de-registration*', Column 11 Lines 25-30, Liu-Column 8 Lines 50-55)

Lee-Hall-Liu disclosed (re. Claim 68) wherein the subscription server also logs subscription information for one or more of the mobile devices (Lee - Figures 4 thru 6, Column 9 Lines 10-65);

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of new ground(s) of rejection presented for Claims 67-70.

Liu disclosed wherein '*each local base station including a cache stored in local memory that is not commonly accessible by all local base stations*'.

### ***Conclusion***

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant.

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Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

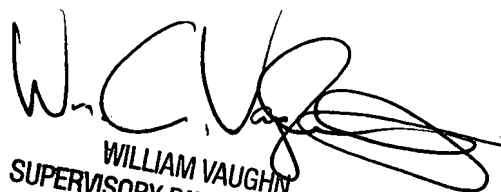
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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